of research any more than from the point of teaching. Bacteriology and Morbid Anatomy are obviously those subjects which can be most successfully taught to students and which are most necessary for them owing to the fact that they have been systematically investigated and hence are most available as an introduction to clinical medicine. The problems dealing with the functions in the body, or, better the vitiated functions of the body in disease, are by no means so well known, and therefore particularly demand investigation. Owing largely to individual training and predilection, the aspect of functional pathology, which is dealt with most in this department, lies in the field of Immunology, although it is obvious that the chemical metabolic changes would serve as an equally fruitful field of investigation. There is not as yet in the department a chemical pathologist, although such an individual is strongly desired. The Physiology of disease, then, is the subject least known, and towards this aspect productive work should be directed.

Concerning the research work Professor Gay says:

"We are investigating problems connected directly with immunology, and also are attempting to investigate the tissue changes which lie back of the reactions in infected animals: in other words, we are making certain investigations of a rather ambitious nature in an attempt to get certain points of contact between structure and function. The possibility of such correlation was impressed on me as a result of my work on anaphylaxis. Dr. Rusk, whose training has been largely in histopathology and morbid anatomy, is investigating certain individual cases of human disease of pronounced interest, from this standpoint, but in general the tendency both of his work and my own, lies in the investigation of general processes experimentally produced rather than in the accumulation of specific instances of disease; in other words, our work when it becomes purely histological, lies along experimental lines instead of depending on cases which come to hand. There seems to me no reason why the logical method of investigating the nature of histological changes should not lie along experimental lines rather than be dependent on the incomplete data that are furnished by casuistics. As regards courses planned for next year; in addition to the general course in undergraduate bacteriology, and the medical courses here outlined, we offer opportunities for research to graduates and undergraduates in the form of two courses, one on Problems of Infection and Immunity, offered by myself, and another in Neuropathology offered by Dr. Rusk, who has had extensive training in this important phase of Morbid Anatomy."

A CASE OF CORTICAL EPILEPSY.

By J. L. WHITE, M. D., and F. F. GUNDRUM, M. D., Sacramento.

Patient, C. M., aged 42, came to the hospital complaining of "jerking in the left arm, followed by fainting spells." The family history was negative for any nervous diseases. The past history was somewhat as follows: Patient had always been a very active, strong man. He had the usual diseases of childhood, and in addition, malaria, several times. Denied lues; gave no history of secondaries. Has had no pneumonia, typhoid, or rheumatism. At the age of 18, patient was thrown from a wagon to the ground, striking upon the left side. He was unconscious for several hours, but is unable to say whether or not there was bleeding from ear or nose. After recovering consciousness, patient was very much disabled for about a year, "unable to use the whole left side." He thinks the disability was due to stiffness and pain, rather than to actual palsy. He "recovered fully" in about a year. Since that time up to two and a half years ago, patient has enjoyed excellent health; has had no trouble with the left side at all. Four years after the accident mentioned above, patient was struck over the right mastoid process with a club, did not lose consciousness, and considers it a very slight injury. Otherwise, past history was quite negative. P. I. began suddenly two and a half years ago. Patient was at work on farm when the left hand began to twitch; the patient felt a darting pain in the left hand; the fingers became flexed, the arm flexed over the chest, and patient lost consciousness for about three-quarters of an hour. Since that time there have been similar attacks at irregular intervals, although they have not always been so severe. Occasionally, by sitting down and remaining very quiet when the arm begins to feel peculiar, patient is able to avoid unconsciousness. Not infrequently he has suffered considerable injury from falling.

P. Ex. Well nourished adult; rational; able to make any directed voluntary movements rapidly and accurately. The patient stands well, with eyes closed; walks without any noticeable difficulty. There is nothing unusual about the ears, throat, chest, or abdomen, except a soft systolic murmur heard over the base of the heart. Pulse is 80, good volume and tension. Genito-urinary system normal, urine negative for albumen and sugar. Nervous system: The eye muscles show no abnormality to motion. Pupils are equal, moderately dilated, and react to light and accommodation. All the muscles supplied by the cranial nerves act normally to voluntary stimuli. There is no special weakness to be made out in the left arm or leg. The deep reflexes are slightly hyper-active, but about the same on the two sides. Patient's cutaneous sensibilities apparently normal to touch, pain and temperature. There is fairly well marked astereognosis of the left hand. On being questioned about this, patient thinks it has existed ever since his accident twenty-four years ago.

Operation: (J. L. W.) under ether anesthesia. A racquet shaped flap, base below, was elevated over the right Rolandic region. No deformity of the internal table was noted. The dura was very thick and opaque over the whole exposed region. There was a very markedly thickened band of dura, 1 cm. wide, 4 cm. long, and 4 mm. thick, which ran horizontally forward just above the superior temporal convolution. A portion of this band 2 cm. long was excised for further examination and a racquet shaped flap of dura was raised exposing the Rolandic region and superior temporal convolution. The pia-arachnoid showed increase in thickness and there was beneath it a space 6 mm. to 7 mm. in depth separating it from the surface of the brain. The space was filled with rather dark clear fluid and was crossed by numerous adhesions, forming partitions so that the area resembled a collection of small cysts. There was no bulging, or protrusion, of the cortex, which was yellowish gray in color. The gyri seemed flattened and the consistency of the brain to touch seemed considerably denser than usual. This area of density extended upward about 2 cm. above the sylvian fissure and down to the lower extremity of the wound, i. e., about to the second temporal convolution. The whole cortical area which showed gross change, then, was

approximately 6x5 cm. in extent and overlapped the centers for the left face and arm as well as the anterior end of the temporal lobe. A small portion of cortex was removed for microscopical examination, the fluid was evacuated from all the small cyst-like collections, and the wound was closed in layers. Throughout the operation bleeding from the diploë was extremely active and troublesome. In the absence of bone-wax it was necessary to leave several pledgets of cotton in the wound to control hemorrhage. The center of the wound was reopened on the 4th day and the cotton was removed: healing per primam throughout. The patient had one slight convulsion on the day following the operation with delirium and somnolence on the fourth day (no edema of discs), recovery otherwise not remarkable. There is at present no palsy of any muscle or the extremity and the reflexes are active, the astereognosis remains unchanged. There have been no further seizures.

On examination of the fragments removed, it was found that the band of dura removed was made up of thick strands of closely packed white fibrous tissue. The portion of cortex excised showed a practical absence of the normal cortical pyramidal cells and a considerable increase in glia elements—more especially the fibers. There were a few lymphocytes scattered through the specimen with a slight amount of old blood coloring matter. Dr. E. C. Dickson, at Lane Hospital, who kindly looked over a section for us, decided: "The appearance is rather that of old scar formation. There does not seem to be evidence of malignancy." The very considerable area involved, the late appearance of epileptiform seizures, and the very few discoverable physical signs, made the case especially interesting to us. The relief (for several months at least) from convulsions following removal of a thick fibrous dural band and the emptying of cyst-like subpial collections of fluid made it seem likely to us that the mechanical pressure may have been the causal agent in setting the epileptiform seizure in motion.

PROCEEDINGS OF THE SAN FRANCISCO COUNTY MEDICAL SOCIETY.

During the month of March the following meetings were held:

Section on Medicine, Tuesday, March 7th, 1911.

1—Sleeping Sickness and the Trypanosomes (with microscopical slides). Chas. A. Kofoid, Professor of Zoology, University of Calif. Discussed by Drs. McCoy, Wellman and Kofoid.

2—Parasites Affecting Man Observed in California (with lantern slides). Creighton Wellman. Discussed by Drs. Kofoid, McCoy, Alvarez and Wellman.

General Meeting, Tuesday, March 14th, 1911.

1—Discussion on Resolutions proposed by Committee on Contract Practice.

2—Aortic Regurgitation. Wm. Watt Kerr.

3—Two Cases of Intracranial Tumor cured by Operation. Leo Newmark, H. B. A. Kugeler, Harry M. Sherman. Discussed by Drs. McClenahan, Stillman, Rosenstirn, Castle, Newmark, Sherman.

Section on Surgery, Tuesday, March 21st, 1911.

1—Rectal Surgery under Spinal Anesthesia. B. F. Alden. Discussed by Drs. Newman, Barbat, Krotoszyner, Zobel, Morton, Tait, Alden.

2—Rectal Surgery under Local Anesthesia. A. J. Zobel. Discussed by Dr. Newman.

Eye, Ear, Nose and Throat Section, Tuesday, March 28th, 1911.

1—Demonstration of Cases. Harrington B. Graham.

2—Demonstration of Case. Cullen F. Welty.

3—"606" in Eye Disease. M. W. Frederick. Discussed by Drs. Barkan, Pischel, Bine, Frederick.

General Section, March 14th, 1911.

Dr. Harry M. Sherman exhibited a patient upon whom he had operated for endothelioma of the dura mater. The tumor removed was 6x8x4 cm., most of it being within the cavity of the skull, where it had made a large depression in the left frontal and prefrontal lobes. The only subjective symptoms of its presence were anosmia and some irascibility. After the removal of the tumor the brain gradually returned to its normal shape and size. A silver plate, oval in shape, about 4x6 cm. in size, was then put into the skull to fill the gap in the bone and restore the convexity of the frontal region.

Local Anesthesia in Rectal Surgery.

By ALFRED J. ZOBEL, M. D.

Local anesthesia is mainly of value in minor surgery. It is the general consensus of opinion among rectal surgeons that nearly 80% of all the affections of the ano-rectal region are conditions that require only a minor surgical procedure for their relief and cure; and that the great majority of these can be done under local anesthesia.

Many of these ano-rectal troubles give rise to pain, suffering, and discomfort out of all proportion to the extent or seriousness of the pathologic lesions present. It is therefore assumed that, if a simple operative procedure under a local anesthetic can affect as good, safe and speedy a cure as can be secured under a general anesthetic, patients need not be subjected to those dangers that always lurk in the latter, even when administered by a most experienced anesthetist; nor need they be caused the post-anesthetic discomforts and sufferings so often attendant thereon. Besides, in these modern days, any operative procedure that requires a general anesthetic means confinement, for a longer or shorter period in a hospital, with not only additional expense, but the dread attached thereto by the laity. As a result there flourishes in our midst the quack, the itinerant, and the "no knife" specialist.

It must not be misconstrued from this that general anesthesia is unnecessary in rectal surgery. Far from it. There are numerous important conditions where it is the only method of anesthesia that can be employed. It should be the anesthetic of choice in operations on complex or horseshoe fistulae; on recto-vaginal, recto-urethral or recto-vesical fistulae; or even in a simple fistula when one is not absolutely sure that it is straight and uncomplicated, and when it is of extended length.

It should be used for the removal of neoplasms requiring extensive dissection; in resections and excisions; and in operations on strictures or malformations above the anal canal.

It must be employed in operations high up in the rectum; where there is a small contracted anus; in cases of extensive prolapse; and where there is any doubt of the diagnosis, thereby making it uncertain how much of an operation might be necessary.

While incipient and small ischio-rectal abscesses may be opened under local anesthesia, a resort to general anesthesia is preferable if the abscess has attained any size; for it may be necessary to do more than was anticipated, before the source of the trouble is located.

The aforesaid conditions are the 20% of those that come to the rectal surgeon for relief, and these are emphasized as requiring general anesthesia.

In the other 80% are those conditions which can be easily, safely, and quickly operated on under a local anesthesia. This group includes internal hemorrhoids, fissures, and small simple straight fistulae, uncomplicated by other serious disease; external thrombotic hemorrhoids; cutaneous hemorrhoids; hypertrophied papillae; small anal strictures; inflamed crypts of Morgagni; polypi; ulcers; moderate degrees of prolapse; and marginal abscesses. These are the lesions we meet with most frequently; and these are the ones that only require a minor surgical procedure under a local anesthetic skillfully